



PRODUCT DATA

Brand Name: RESCOCAST 3E

Description: RESCOCAST 3E is a high strength, special lightweight heat insulating castable designed primarily for use in the petrochemical industry for single component linings in FCC vessels, etc. The product can be applied by gunite or casting methods.

Physical properties shown are average values of samples taken under controlled conditions
ASTM test methods used where applicable

Maximum Service Temperature: 2200°F (1205°C)

Typical Water Required for Mixing (by weight) :
Casting 39%
Predampening for Gunning 9.2 - 11.6%

<u>Bulk Density (pcf)</u>	<u>Casting Data</u>		<u>Gunning Data</u>	
After 1500°F (815°C)	61	(0.98 g/cm ³)	70	(1.12 g/cm ³)
<u>Cold Crushing Strength (psi)</u>				
After 1500°F (815°C)	800	(56 kg/cm ²)	900	(63 kg/cm ²)
After 2000°F (1095°C)	600	(42 kg/cm ²)	750	(53 kg/cm ²)
After 2200°F (1205°C)	600	(42 kg/cm ²)	750	(53 kg/cm ²)
<u>Modulus of Rupture (psi)</u>				
After 1500°F (815°C)	150	(10.5 kg/cm ²)	450	(32 kg/cm ²)
After 2000°F (1095°C)	175	(12.25 kg/cm ²)	450	(32 kg/cm ²)
After 2200°F (1205°C)	175	(12.25 kg/cm ²)	475	(33.25 kg/cm ²)

<u>Thermal Conductivity (K Factor)</u>	<u>BTU/ft²/hr./°F/inch</u>		<u>W/mK</u>	
Mean Temperature				
500°F (260°C)	1.4	0.20	1.55	0.22
1000°F (540°C)	1.6	0.23	1.75	0.25
1500°F (815°C)	1.7	0.25	2.00	0.29

<u>Permanent Linear Change (%)</u>		
After 1500°F (815°C)	-0.3 to -0.1	-0.4 to -0.2
After 2000°F (1095°C)	-0.8 to -0.3	-1.0 to -0.5
After 2200°F (1205°C)	-1.0 to -0.3	-1.2 to -0.5

<u>Porosity (%)</u>		
After 1500°F (815°C)	50.0	45.0

<u>Typical Chemical Analysis (%)</u>	
(Calcined Basis)	
Alumina (Al ₂ O ₃)	37.9
Silica (SiO ₂)	36.2
Lime (CaO)	20.4
Iron Oxide (Fe ₂ O ₃)	2.4
Titania (TiO ₂)	1.3
Magnesia (MgO)	0.1
Alkalies (Na ₂ O+K ₂ O)	1.7

Standard Packaging: 50 lb bag. 50 bags per pallet. Bulk packaging available.

Brand Code: 0328

The properties shown on this data sheet represent typical average results using standard ASTM test methods (unless otherwise noted) conducted under controlled condition (using standard rectangular shapes), and should not be considered to be guaranteed specifications. Properties are subject to normal manufacturing statistical standard deviation ranges, and Resco Products, Inc. reserves the right to modify the properties and specifications at any time without prior notice.

RESCO PRODUCTS disclaims any express or implied warranties based on this sheet.

05/01/19 is the date that this data sheet was updated. Check with your RESCO sales representative or RESCO website to determine you have the current sheet.